CLAIMS

What is claimed is:

1. A computer system, comprising:

   a biometric device configured to transmit images;

   an interface coupled to the device to receive the transmitted images, wherein the interface

   is configured to determine if the transmitted images include bands.

2. The computer system of claim 1, wherein the interface is configured to report failure if the

   interface determines that the transmitted images include bands.

3. The computer system of claim 1, wherein the bands are attributable to illumination changes.

4. The computer system of claim 1, wherein the bands are attributable to electrical changes.

5. The computer system of claim 1, wherein the bands are attributable to induction across the

   biometric device.

6. The computer system of claim 1, wherein the interface is configured to process the images to

   determine minutia information.

7. The computer system of claim 6, wherein the interface is configured to convert the minutia

   information into a template only if the interface does not determine that the transmitted images

   include bands.

8. The computer system of claim 1, wherein the biometric device is a fingerprint scanner configured to transmit images of fingerprints.

9. The computer system of claim 1, wherein the interface determines if one or more of the transmitted images include at least one straight line having at least a predetermined width across the image.

10. The computer system of claim 1, wherein the interface processes a plurality of rows to determine a corresponding plurality of grayscale value histograms.

11. The computer system of claim 10, wherein the interface processes the plurality of grayscale value histograms to determine a corresponding plurality of modes for the grayscale value histograms.

12. The computer system of claim 11, wherein the interface determines if the plurality of modes indicate the existence of bands in the images by determining if the modes exhibit variations greater than a predetermined amount.

13. The computer system of claim 1, wherein the interface connects to an expansion slot, and wherein the computer system further comprises:

    a system memory configured to store software;

4   a processor coupled to the system memory and configured to execute the software, wherein

5   the processor is further coupled to the interface, wherein the software configures the

6   processor to initiate operation of the interface and biometric device.

1   14. The computer system of claim 13, wherein the processor is configured to receive a template

2   from the interface, and wherein the processor is configured to compare the template to a stored

3   template.

1   15. The computer system of claim 13, wherein the computer system further comprises:

2   a network interface coupled to a network login server, wherein the network login server is

3   configured to receive a template from the interface, and wherein the network login

4   server is configured to compare the template to a stored template.

1   16. A fingerprint verification method that comprises:

2   capturing a fingerprint image; and

3   determining if the fingerprint image includes bands, and if so, aborting creation of a

4   fingerprint template.

1   17. The method of claim 16, wherein said bands are bands attributable to illumination changes.

1   18. The method of claim 16, wherein the determining is one of a plurality of security tests, and

2   wherein the method further comprises:

3   creating a fingerprint template if the image passes the plurality of security tests.

1   19. The method of claim 18, wherein the creating includes:

2   extracting minutia information from the fingerprint image; and

3   converting the minutia information into the fingerprint template.

1   20. The method of claim 19, wherein the plurality of security tests includes:

2   determining if minutia information from one fingerprint image matches minutia

3   information from another fingerprint image.

1   21. The method of claim 16, wherein the capturing includes:

2   illuminating a window from a scanning side;

3   scanning light reflected back through the window in raster fashion.

1   22. The method of claim 16, wherein the determining includes:

2   detecting at least one straight line spanning the image and having at least a predetermined

3   width .

1   23. The method of claim 16, wherein the determining includes:

2   finding a grayscale value histogram mode for each row of the fingerprint image;

3   calculating a variance of the modes; and

4   determining that the fingerprint image includes bands if the variance exceeds a

5   predetermined threshold.

1   24. The method of claim 18, wherein the plurality of tests includes: and

2   extracting minutia information from a plurality of fingerprint images;

3   comparing the minutia information of the plurality of images to determine if at least a

4   minimum amount of variation exists, and if not, aborting the creation of the

5   fingerprint match template.

1   25. A fingerprint verification system that comprises:

2   a capture means for capturing a fingerprint image; and

3   a processing means for determining if the fingerprint image includes bands attributable to

4   condition changes during the capturing of the fingerprint image.

1   26. The system of claim 25, wherein said condition changes include illumination intensity changes.

1   27. The system of claim 25, wherein if the processing means determines that the fingerprint image

2   includes bands, the processing means prevents creation of a fingerprint template from information

3   in the fingerprint image.